



Fall 2019

Section 502
Tues & Thurs 9:00-10:15 a.m.
HSB Rm. 101

Biology 1140 Syllabus

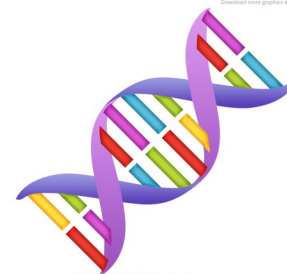
COURSE INFORMATION

This introductory biology course for students interested in health science careers focuses on the concepts of chemistry, cell biology, metabolism, genetics, and regulation of gene expression.

MIRIAM'S COURSE DESCRIPTION

I love teaching Biology – the study of life. In this class we will start by learning about the molecules that are part of all cells. Yes – your cells and everything we eat are composed of molecules. Most of the semester we will spend learning about the cell – such wonderful little machines that do all the work within an organism. First we will have to learn about all the cell components – think of them as little organs (organelles). Then, we will have to learn about how our cells obtain energy from food we eat. Next we will discuss DNA – our chromosomes; they are the ones that determine what we look like and everything about us. Have you ever thought about cell division? Why do cells divide? Why do we need to make more cells? These questions will be answered during our discussion on Mitosis and Meiosis. We also will discuss how traits are passed from generation to generation. Look at your family and see what traits you share. The last part of the semester we briefly study anatomy & physiology of the human body. How amazing is this? Now do you know why I love teaching Biology – we learn about our body and how it works.

Bring the knowledge that you have and take the journey with me as you continue with your educational goals.



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Instructor's Information

Miriam Chávez, Ph.D.

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Office Hours: Mon—Thurs 8:00—9:00 a.m.
Tues & Thurs 10:30 to 11:30 a.m.



I have been teaching for 29 years at UNM—Valencia. I am originally from Bolivia and currently live in Los Lunas.

STUDENT LEARNING OUTCOMES

The course is divided into five modules and at the completion of this course, student will be able to:

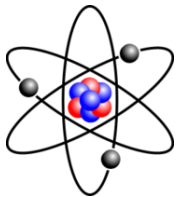
Introduction to biology

- Explain the central ideas and process of biology
- Explain the role of science and critical thinking in society.

Introduction to chemistry

- Apply basic chemistry to the biology of cells

Cells



- Describe the structures and functions associated with eukaryotic cells and compare/contrast to prokaryotic cells.
- Describe the components and mechanisms of cellular metabolism.

Genetics

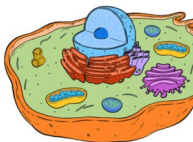
- Describe the DNA structure and replication, including mutation and DNA repair.
- Explain the central dogma of genetic flow; explain gene expression and how it's regulated.
- Explain the relationships between sexual reproduction, genetic diversity and inheritance.
- Describe and contrast the processes of mitosis and meiosis.
- Describe patterns of inheritance and human genetic disorders

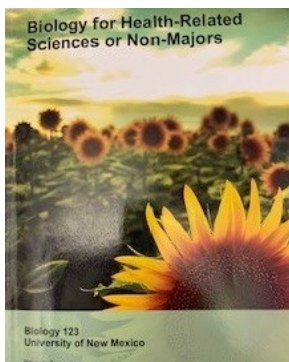
Human physiology

- Explain homeostasis and identify major tissues, organs and organ systems and their function.



The overall goal of the course is to help you become literate in these scientific concepts and be able to apply them in your life as you move forward in reaching your educational goal.





REQUIRED LEARNING RESOURCES

Textbook: Inquiry into Life by S. Mader and M. Windelspecht, 15th edition, 2017, McGraw Hill Publisher. The bookstore has a special edition of the book - Biology for Health-Related Sciences or Non-Majors Course, Biology 123, University of New Mexico Valencia Campus, ISBN-9781307044010.

Course Webpage: <https://learn.unm.edu/> . The webpage contains resources you need to succeed in the course. Login using your UNM user name and password. ***You are responsible for all announcements, assignments, quizzes, tests and/or any changes to the syllabus will be posted on the webpage.***



“If you can dream it, you can do it” — Walt Disney

TIPS FOR SUCCESS

If you are feeling lost or overwhelmed

PowerPoint Slides. Use the PowerPoint slides for each chapter to guide your reading the chapter. The Learning objectives should be used to make sure that you understand the material for each chapter.



Study habits. Look at figures and read the chapter. It may take more than one reading to understand the material presented. Learn the vocabulary.

Office hours. I am available to help you succeed in the class; stop by my office and I can clarify information or help you with homework.

Learning Center. The learning center has tutors ready to help Biology 123 students. Call the learning center at 925-8907 for available hours.

Study groups. Get together with classmates and form study groups. If you need a place to meet, you can try the STEM Center.

COURSE POLICIES

I will always be early to class so we can begin on time (and you can ask questions before we begin). I expect that you will contribute to a respectful atmosphere for learning.

Attendance. You must be in the class on time to get the most out of this course, participate in class discussions, and to get a good grade. You are responsible for “signing-in” to document your attendance. If you are missing more than 15 min. of class, it will count as an absence. Unless otherwise advised, after four absences you can be dropped from the class. The student will be held responsible for all material and information regardless of whether the student was in class.

Make-up Exams. Make-up exams (essay format) will be given to students with a documented emergency. You must notify the instructor the day of the missed exam.

Quizzes. Make-up quizzes will be given to students with a valid excuse.

Homework. These will be assigned weekly and there to help you master the concepts presented.

Review Assignments. There will be three assignments. These will help you apply the knowledge that you have gained. There will be one due before each regular exam.

Late assignment/homework. Late assignments/homework will only be accepted within the first week following the due date. There will be a 50% reduction in grade. I will not accept assignments after the first week.

Withdrawal. If a student drops the course before September 6, it will not appear on their transcript. After September 6 a “W” will be issued.

Cell phones. As a courtesy to the class, please turn off any cell phones. Please do not text message during class. Any sight of a cell phone during exams or quizzes will result in an automatic fail for that assignment.

Disruptive behavior. Please avoid any disruptive behaviors in the classroom. This includes going in and out of the class, texting, talking.

Plagiarism. Only submit work that is yours. Always cite any work used using APA



THINGS TO KEEP IN MIND

Accommodations:

If you have a documented disability and you need a reasonable accommodation made for you in this course, please consult with me immediately at the outset of the course so we can design a solution that will help you be successful in the class.

Academic Dishonesty:

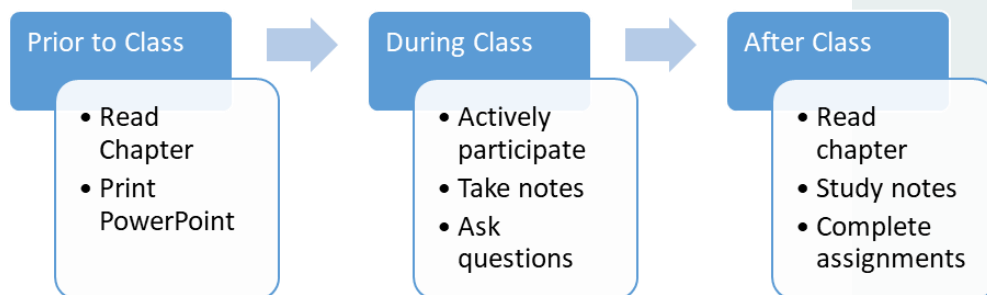
Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or otherwise fails to meet the standards. Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the

work in question and/or for the course. Academic dishonesty includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

Equal Opportunity and Non-discrimination:

In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered “responsible employees” by the Department of Education (see page 15 - <http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf>). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see:

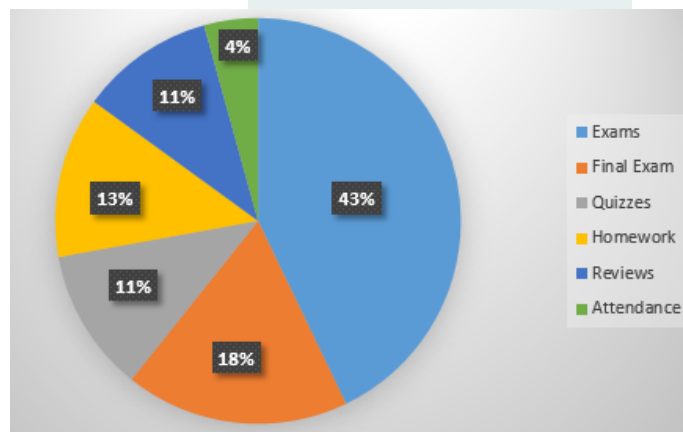
Develop good study habits. Don't wait until the last minute.



GRADING CRITERIA—

For Assigning Final Course Grade:

Exams (3)	300 points
Final Exam	125 points
Quizzes (4 out of 5)	80 points
Homework (9)	90 points
Assignments (3)	75 points
Attendance	30 points



The student's total points will be divided by the total possible points (700) and the grade earned will be based on the following percentage:

100 or higher – A+	77-79 – C+
94-99 – A	73-76 – C
90-93 – A-	70-72 – C-
87-89 – B+	60-69 – D
83-86 – B	below 60 – F
80-82 – B	



COURSE OUTLINE

Week	Date	Chapter - Topic
1	August 20	Overview of Biology 1: Study of Life
	August 22	1: Scientific Method <i>Homework 1 due</i>
2	August 27	2: Basic Chemistry Quiz 1
	August 29	2: Molecules of Life <i>Homework 2 due</i>
3	September 3	2: Organic Chemistry
	September 5	3: Cells Biology <i>Homework 3 due</i>
4	September 10	3: Cells Structure Quiz 2
	September 12	Assignment 1 & Review
5	September 17	Exam 1 (Chapters 1-3)
	September 19	4: Cell Membranes
6	September 24	6: Energy & Enzymes <i>Homework 4 due</i>
	September 26	7: Cellular Respiration I
7	October 1	7: Cellular Respiration II <i>Homework 5 due</i> Quiz 3
	October 3	Assignment 2 & Review
8	October 8	Exam 2 (Chapters 4, 6, 7)
	October 10	Fall Break—No Classes
9	October 15	25: DNA Structure & Function
	October 17	25: DNA Structure & Function

Week	Day	Chapter: Topic
10	October 22	25: Gene Expression
	October 24	25: Gene Regulation <i>Homework 6 due</i>
11	October 29	5: Cell Cycle
	October 31	5: Cell Division <i>Homework 7 due</i>
12	November 5	23: Genetic Inheritance I Quiz 4
	November 7	23: Genetic Inheritance II
13	November 12	Assignment 3 & Review
	November 14	Exam 3 (Chapters 25, 5, 23)
14	November 19	24: Chromosomal Inheritance I
	November 21	24: Chromosomal Inheritance II <i>Homework 8 due</i>
15	November 26	11: Human Organization Quiz 5
	November 28	Thanksgiving—No Class
16	December 3	11: Human Organization <i>Homework 9 due</i>
	December 5	Review for Final Exam
	Tuesday, December 10	Final Exam at 9:00 a.m.

** I reserve the right to make necessary changes